9884 Robot Capabilities

# Features

* Four tread design and articulating legs
* Arm designed to place climbers into the shelter zone
* Arm designed to assist the robot when climbing the high zone of the mountain and to attempt a pull-up
* Two articulating servo arms to hit the zip line triggers

# Autonomous

*Note:* Team 9884’s robot has multiple separate autonomous modes that can each be useful in different situations.

1. Immediately drive forward and attempt to place the two climbers into the correct shelter
2. Wait fifteen seconds, and then attempt to place the two climbers into the correct shelter
3. Drive forward 150 cm (Useful for accumulating a small amount of debris)
4. Wait for driver control mode (no autonomous routine)

# Driver Control

*Note:* Team 9884’s robot was designed such that its primary goal would be to climb the mountain and hang from the bar. As such, the robot is best designed to go straight for the mountain, instead of scoring debris first. Below are the driver control capabilities.

1. Attempt to place climbers into the shelter zone
2. Score debris into the floor goal
3. Score debris into the parking zone
4. Hit the two low zip line triggers on the mountain

*Note:* The third zip line trigger cannot be hit until the robot’s pull-up arm is deployed, meaning that it is very unlikely that it will be hit until the end game.

1. Climb the mountain into the mid-zone unassisted.
2. From the mid-zone, release a hook to pull the robot up into the high zone

# End Game

*Note:* During the end game, team 9884’s robot will likely be in the mid to high zone on the mountain. Because of this, team 9884’s endgame will almost always be spent climbing into the high zone and hanging on the mountain.

1. Climb into the high zone of the mountain
2. Attempt to pull up and hang from the bar